ECE 530 Cloud Computing

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What if Cloud dies?

What If Cloud Dies?

- The cloud probably has better availability than you could do on your own. However:
- Consider retaining as much in-house capacity as you need to stay alive and muddle through
- Example: hospital or police department, which get electricity from grid for normal operations but keep backup generator for vital functions in case of outage.
- Also: be very careful to maintain ability to access cloud, such as local routers

Ultra-Sensitive Data

• Some core, vital data you just can't trust to anyone else. Example: Fidelity account contents, US Department of Defense submarine locations. Can't use external cloud, but might consider internal cloud appliances, with safeguards.

 These companies often have much larger stores of data with lower security requirements for which cloud could be highly appropriate. Example: Fidelity fund prospecti and reports, US DoD purchases of coffee and underwear.

Legal

- Sometimes law requires that certain data be stored in specific countries or locations (EU).
- Sometimes you want data stored in specific locations to avoid any possible uncertainties in jurisdiction (MS HealthVault in Canada).
- Technology changing faster than law can keep up. More than a little bit tricky. Cloud could hurt (hosting not available in required jurisdiction) or help (quick switch of hosting into newly required jurisdiction).

Availability of Cloud Resources

- How sure are you that your cloud provider will have enough cloud resources available when you want to scale up, particularly in burst situations? (e.g. Weather.com)
- How badly would it hurt your business if you wanted to scale up but couldn't?
- What remedies are available from cloud provider if you cannot scale at the time you want, to the degree that you want? (See service level agreement with provider.)
- Amazon has interesting spot market for computational resources.

